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4 March 1982

Worldwide Report

ENVIRONMENTAL QUALITY

No.341

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EC COUNCIL DIRECTIVE ON WATER POLLUTION CONTROL

Rome STAFFETTA QUOTIDIANA PETROLIFERA in Italian 24 Dec 81 pp 4-5

[EC Council Directive: "The EEC and Marine Pollution--Council Decision for Reduction of Pollution from Hydrocarbons"]

> [Text] Consequent to a proposal by the Commission in August 1980 (see STAFFETTA QUOTIDIANA PETROLIFERA of 6 August 1980), the Council has established by decision of 3 December (81/791/EEC), a Community system of information in the matter of control and reduction of marine pollution from hydrocarbons. We reprint the text of the decision, with its appendixes, from the OFFICIAL JOURNAL L 355/EEC.

The Council of the European Communities,

with reference to the treaty that establishes the European Economic Community, Articles 213 and 235 in particular;

with reference to the proposal by the Commission;

with reference to the opinion of the European Parliament;

with reference to the opinion of the Economic and Social Committee;

considering that the resolution of the Council of 26 June 1978, concerning a program of action of the European Communities in the matter of control and reduction of marine pollution from hydrocarbons, provided that the Commission would carry out preliminary studies before presenting proposals for controlling and reducing this type of pollution;

whereas these studies have shown the possibility of creating a system of information for control and reduction of marine pollution from hydrocarbons, comprising an updated inventory of the means for combating it, an updated listing of the national and joint plans of action, and an updated collection of data concerning in particular the properties of hydrocarbons;

considering that the creation of such an information system will enable the Commission to carry out some of the tasks provided for in the aforesaid resolution and in the program of action appended to it;

considering that the inventory of means for combating pollution will enable the member states and the Commission to identify any eventual gaps and the member states to take suitable measures;

considering that in case of accidents, the collection of data on the properties of hydrocarbons will enable the member states to evaluate the nature of the danger better and to determine the most adequate means for combating pollution;

considering that for effective functioning of the system it is necessary for each member state to designate the competent authorities for collecting the information that is to be put into it, for transmitting it to the Commission and for receiving the whole of the information collected;

considering that said information system appears necessary for achieving one of the Community's objectives in the matter of control and reduction of marine pollution from hydrocarbons, that not all the powers of action required for such purpose have been provided for by the treaty and that it is therefore necessary to have recourse to Article 235 of the treaty,

has adopted the present decision:

Article 1--1. There is established a system of information to enable the competent authorities of the member states to have available to them the data necessary for control and reduction of marine pollution from hydrocarbons.

2. Said system consists of:

a) an inventory of means for combating such pollution (Appendix I);

b) a listing of the plans for national and joint action, comprising a succinct description of their content and designation of the competent authorities in the matter;

c) a collection of data on the properties of hydrocarbons and on their behavior, as well as on the methods of treatment and on the end-utilization of the mixtures of water, hydrocarbons and solid materials recovered at sea and along the coasts (Appendix II).

Article 2--1. The member states transmit to the Commission the information referred to in the Appendixes and in Article 1, section 2, letter b), for the first time within the 12 months following publication of the present decision in the OFFICIAL JOURNAL of the European Communities.

2. Subsequently, the member states carry out each year, in the month of January, an updating of the information referred to in section 1.

In addition, the member states communicate substantial modifications of said information to the Commission as soon as possible.

Article 3--The Commission is responsible for the implementation of the information system.

It makes available to each member state a copy of all the information introduced into the system.

Article 4--Within 6 months of the date of publication of the present decision in the OFFICIAL JOURNAL of the European Communities, each member state designates the authority or authorities competent to collect and transmit to the Commission the information referred to in Article 2, as well as to receive the information referred to in Article 3. It informs the Commission of them.

Article 5--Every 2 years, the Commission composes and transmits to the Council and to the European Parliament a report on the functioning of the information system and on its utilization by the member states.

Article 6--The member states receive copies of the present decision.

Appendix I--Inventory of the Means for Combating Marine Pollution from Hydrocarbons

The purpose of this inventory is to provide an initial indication of the means available in a member state for combating marine pollution from hydrocarbons, some of which means, in case of accident and under the conditions to be established among the competent authorities, could be made available to another member state requesting them. It is understood that the listing, in the inventory, of a means of combating pollution does not entail an obligation to make it available.

A. Content--The inventory comprises data on:

1. the specialist personnel (number, specialties);
2. the mechanical means for recovering hydrocarbons spilled into the sea and for preventing or combating pollution of the coasts, and on the specialist personnel designated to use such means;
3. the chemical means for combating marine pollution and for cleaning the coasts, and on the specialist personnel designated to use such means;
4. the teams that go into action;
5. the ships and aircraft equipped for combating pollution;
6. the mobile means for temporary storage of recovered hydrocarbons;
7. the systems for offloading from oil tankers.

The inventory contains data on the characteristics of the means indicated above and on their location. It may also contain data on the time necessary for putting them into service.

B. Modalities--The Commission prepares a preliminary version of the inventory and sends a copy of it to the member states. It makes sure that the information transmitted to it conforms to the end-purposes and content of the inventory and takes suitable measures for construction of the inventory proper.

The member states:

--collect and transmit to the Commission the available information relating to the data referred to in section A;

--provide to the Commission the available information necessary for the updating of the inventory.

Appendix II--Collection of Data on the Properties and Behavior of Hydrocarbons as well as on the Methods of Treatment and the End-Utilization of the Mixtures of Water, Hydrocarbons and Solid Materials Recovered at Sea and along the Coasts

The purpose of such collection is to furnish indicative data on the hydrocarbons in order to facilitate rapid and effective action aimed at controlling the effects of an accidental discharge of hydrocarbons and to limit the final long-term impact of the storage of contaminated hydrocarbons.

A. Content--In the first place, the collection consists of objective and indicative data on:

--the pertinent characteristics of the hydrocarbons that might be spilled--for example: density, surface tension, viscosity, paraffin content, liquefaction point, explosion point and solubility;

--the evolution of hydrocarbons in the sea as a result of processes of evaporation, dissolution, emulsioning, oxidation and biodegradation, as well as on the dispersion of hydrocarbons in the natural environment;

--the evolution of hydrocarbons as a result of the treatment methods implemented in the combating of pollution from hydrocarbons in the sea or along the coasts.

In the second place, the collection summarizes the existing information regarding the impact of hydrocarbons on the marine fauna and flora.

In the third place, the collection consists of data on:

--the mode of operation of and description of the permanent installations for final processing;
--the end-utilization of the mixtures of water, hydrocarbons and solid materials.

B. Modalities--The Commission collects the data referred to in section A and provides for the presentation and availability of them to the member states.

The member states:

--collect the available data referred to in section A and communicate them to the Commission;

--indicate to the Commission the other sources of data that they know of;

--furnish to the Commission the available information needed for the updating of the collection.

11267
CSO: 5000/2055

INSTITUTE OF ENVIRONMENTAL STUDIES TO BE SET UP

Karachi MORNING NEWS in English 13 Feb 82 p 5

[Text] On the special directive of the Sind Governor, Lt-Gen S. M. Abbasi, a full fledged institute of environmental studies will be set up at the Karachi University to supervise research projects in various fields of environmental science and also to check pollution in urban areas.

The setting up of the institute was recommended by fourteen sub-committees constituted by the KDA's Master Plan and Environmental Control to study different aspects of environment.

The decision for setting up of the institute was taken at a meeting of the Executive Committee of Karachi Environmental Protection Committee Prof. S. M. A. Tirmizi, Vice-Chancellor of Karachi University, who is also the Chairman of the Executive Committee presided over the meeting.

The institute, to be set up in collaboration with the Master Plan and Environmental Control Department of KDA, will initially be housed in any one of the departments of Karachi University till an independent building was available for it.

Besides identifying and evaluating problems relating to the environment, the institute will coordinate the working of the 14 sub-committees.

The institute will also seek assistance from international organisations like UN Environmental Programme for organising seminars, workshops, symposia, training courses, expert advisory services. The research workers and officials of the institute will also visit various projects and industries in order to study the hazards of pollution.

It may be recalled here that 14 sub-committees were constituted on the directive of the Sind Governor with a view to preparing a follow up action programme in the light of recommendations of the seminar organised by the KDA on "Hazards of pollution in urban areas".

Each sub-committee was assigned a particular subject relating to the environmental conditions and asked to conduct research in their particular field, identify the problems, fix priorities and propose remedial measures for the follow-up action.

Speaking at the Executive Coommittee's meeting, Mr Z. A. Nizami, Director General KDA said that on the directive of the Sind Governor, the KDA was working on improving the environmental conditions of Karachi city.

Mr Nizami said that besides overcoming air pollution, the government was giving highest priority to the treatment of waste water and its recycling, marine pollution including radio active waste, asbestos poisoning, industrial pollution including industrial solid and water waste recycling etc.

He said that for expeditious implementation of the projects of the sub-committees, the DKA on the directive of the Governor, was placing rupees one million at the disposal of the Executive Comittee of the Karachi Environmental Protection Committee. He presented a cheque for the amount to the Vice-Chancellor.

It was also decided at the meeting to convene a meeting of the convenors of all the 14 sub-committees to discuss their projects for implementation.

The Executive Committee, it was decided, will meet again some time next month to review the working of the subcommittee.

The meeting was attended, among others, by Mr Z. A. Nizami, Director General KDA, Dr Mrs N. M. Tirmizi, Director Institute of Marine Biology, Karachi University, Mr A. H. Chotani, Member (Technology) PCSIR, Mr Zakir Ali Khan, Chief Engineer, KMC, Mr S. Naseem Ahmed, Director, Master Plan and Environmental Control Department and senior professors of Karachi University.

CSO: 5000/5663

DESILTING OF CHANNELS COMPLETED IN PUNJAB

Karachi DAWN in English 15 Feb 82 p 8

[Text] LAHORE, Feb. 14: The target fixed for the desilting of 366-mile long perennial water channels has been successfully completed entirely on self-help basis by the farmers within a record period of over one month in the province.

The implementation of the desilting programme has not only resulted in the saving of Rs. 13.30 lakh but will also go a long way in redressing the grievances of the tail-enders about the shortage of irrigation water, and thus will result in the improvement of their socio-economic conditions.

The programme was launched in the month of December last in the divisions of Lahore, Faisalabad, Bahawalpur Sargodha and Multan after thorough planning at the behest of the Punjab Governor Lt-Gen Ghulam Jilani Khan. Since the maintenance of extensive irrigation network involves colossal funds and labour, the present Government motivated the 80 per cent farming population to come forward for clearing and maintaining distributaries in coordination with the irrigation authorities and district administration.

The response of the farmers to the call of the Government was nothing less than spectacular. They embarked upon the massive silt clearance work on Dec 18 last and desilted 266 mile long perennial channels. The irrigation staff supervised the desilting operations according to design and specifications.

The tremendous success of the first project of silt clearance has created a sense of self-reliance in the agrarian community and has brightened the prospects of attracting its willing co-operation and participation for the future success of such ventures.

The Government has also decided to give suitable awards to the people for rendering voluntary services in silt clearance work on the pattern adopted for the improvement and remodelling of water courses.

CSO: 5000/5663

ENVIRONMENTALISTS FIND PUBLIC APATHETIC ON MINING ISSUE

Auckland THE NEW ZEALAND HERALD in English 13 Jan 82 p 8

[Text]

Hamilton

Groups opposed to large-scale mining on the Coromandel Peninsula may have to carefully choose their shots in the legal battles they fight this year after a dismal response to an appeal aimed at raising $20,000.

One of the groups, Coromandel Watchdog, fears that the mining companies might get approval to operate on the peninsula only because of public apathy.

But Amoco Minerals NZ Ltd, which already holds prospecting licences on the peninsula, says the lack of support shows that people are happy with the new mining laws, and that only "extremists" are agitating for a complete mining ban.

Expenses Appeal

Last November, the Environmental Defence Society ran a full-page advertisement in the Herald, aimed at getting $20,000 to pay for its expenses related to mining over the next 18 months.

The society, which has represented a number of environmental groups and individuals in mining-related proceedings, ran the advertisement in conjunction with the Royal Forest and Bird Protection Society, Friends of the Earth and the Watchdog group.

But the advertisement, which cost $4500, raised only $3000.

The executive officer of the society, Mr Gary Taylor, said yesterday that he had believed "an awful lot of people" were concerned about mining on the peninsula and that the society would be flooded with donations.

Mr Taylor said he was disappointed with the response, but did not know what could be read into it.

He said the society desperately needed the money for legal proceedings this year.

The hearings were particularly important because some were the first which would be heard by the planning tribunal under the new legislation. They would set the ground rules for procedure and establish the standards which would need to be met by the mining companies.

Water Rights

Mr Taylor said the society planned to object to four applications for prospecting licences covering areas at Whangamata, the Kauaeranga Valley (near Thames) and Whangapoua.

In addition, it expected further legal action relating to five water rights granted to Amoco and two to another company for drilling on various parts of the peninsula.

It also planned to continue with objections to an application by another company to prospect on the Kuaotunu Peninsula. These proceedings, which were adjourned before the new legislation was passed, will continue in the Thames District Court.

Mr Taylor said that if the society could not raise the money it might have to "simply cut its cloth accordingly" and become involved only in the "sets of litigation" it could afford.

The groups had a number of options for raising funds, Mr Taylor said.

The New Zealand director of Amoco Minerals, Mr Peter Roberts, said the poor response to the appeal was "a telling measure" of the degree of public support for the anti-mining groups.

But a spokesman for Coromandel Watchdog, Mr Peter Verschaffelt, said the mining companies had deliberately painted a picture of antagonism to the new legislation.

CSO: 5000/9061

MINING COMPANY BOWS TO PUBLIC OPPOSITION IN SCENIC AREA

Auckland THE NEW ZEALAND HERALD in English 19 Jan 82 p 2

[Text]

Rotorua

A "victory for common sense" was one reaction yesterday to an Australia-based mining company's decision to pull out in the meantime from plans to look for gold in the Rotorua lakes district.

But Mr David Jones, the exploration manager for Newmont Proprietary Ltd, preferred to think of the decision as a "triumph of rational discussion."

Whatever the terminology, those opposed to mining in the area were not unexpectedly happy with the company's decision — although many still want such areas given statutory protection from all future mining applications.

Newmont Proprietary Ltd applied in November for three exploration licences — one at Rotorua, and two for blocks between Taupo and Tokoroa.

The 300 square kilometre block just east of Rotorua includes lakes, scenic reserves, archaeological sites and popular tourist areas.

Good Faith

The Rotorua licence application attracted more than 100 objections, but the other two applications aroused little interest.

Mr Jones, who is visiting New Zealand, said all three applications had been made "in good faith and on the basis of sound scientific research."

"But it is abundantly clear that a wide range of responsible people are opposed to exploration being conducted in the immediate vicinity of the Rotorua lakes," he said.

"In view of the likely long delays to the granting of this particular licence and the recognition that the area is of lesser priority than the others, Newmont will withdraw its exploration licence for the Rotorua area."

Mr Jones did not, however, close the door on applying for a prospecting licence over the area in the future. Newmont would continue to study all geological and other data concerning the land, he said.

"More detailed study may indicate that specific locations within the area merit closer investigation," he said. "If so, then the company will apply for prospecting licences."

Sensitivity

Present indications were that the land was not particularly promising.

He said his company would in the future have a much greater sensitivity to the local environment and the reaction of the New Zealand population.

Referring to the "highly competitive climate" in the mineral exploration business, Mr Jones said Newmont had now effectively lost its stake in the Rotorua area. Any other company could now take its place and file for an exploration licence.

Mr Barry Marshall, of the Royal Forest and Bird Protection Society, said the decision was a "victory for commonsense."

He wants the Government to take a lead from countries like Australia, Canada and the United States and declare national parks, scenic reserves and similar areas sacrosanct.

Example

One of the strongest objectors to the Newmont application, Mrs Pauline Davey, agrees.

"They (Newmont) were considerate and reasonable," she said. "They are geologists and are after minerals. We have to accept that."

Mrs Davey said that the Rotorua lakes district was a classic example of an area that should have been "out of bounds" from the word go.

As Newmont continues its other two applications, three other companies are also involved in the Bay of Plenty-central North Island gold hunt.

Amoco Minerals NZ Ltd have four exploration licence applications — one over a block at Kawerau and three between Rotorua and Taupo.

Amoco's New Zealand director, Mr Peter Roberts, said negotiations with the four objectors — Fletcher Challenge, Tasman Pulp and

Paper, NZ Forest Products and Tarawera Forests — had still to be completed.

"We hope to have the objections resolved shortly," said Mr Roberts.

Other applications come from BP New Zealand Ltd in respect of a 110 square kilometre block between Tauranga and Te Puke, and Australia and New Zealand Mining Co over a 316 square kilometre block between Tokoroa and Taupo.

A spokesman for the mines division of the Ministry of Energy said these applications had attracted little opposition.

CSO: 5000/9061

ENVIRONMENTAL PROTECTION PROGRAM OUTLINED

Katowice TRYBUNA ROBOTNICZA in Polish 18 Nov 81 p 3

[An abridged version of a speech delivered by Zbigniew Szalajda, minister of metallurgy and machinery industry, on 26 October 1981 during a session on environmental protection at the Voivodship People's Council in Katowice]

[Text] Of the enterprises considered harmful to the environment, one-third is composed of the ministry of metallurgy and machinery industry plants. These enterprises on the one hand are the backbone of the entire national economy; on the other hand, they represent a high level of harmful influence.

From 1975 to 1980, these enterprises planned to spend over 7 billion zlotys. Regardless of the justification, only 3.2 billion zlotys--or barely 45 percent--were spent.

The Plan of Action

As a result of awareness of the importance of this problem and as an attempt to take proper and rational action, conforming to the needs and existing capabilities in this field, in 1980 I created three teams of experts consisting of representatives of the environmental protection services, operating under the voivodship administration offices; trade unions; and scientific research centers. Their task was, among others, to make an analysis of the current state of safety and health conditions in the work place as well as the pollution level and to determine ways of fast and effective liquidation of existing irregularities. Their efforts resulted in an action program in environmental protection for the enterprises of the Ministry of Metallurgy and Machinery Industry, which I approved in February 1981 for implementation after discussing it first with the Environmental Protection Department of the Voivodship Administration Office in Katowice.

As a result of ministries' reorganization and the decisions made on 28 July during a session at the Voivodship Administration Office in Katowice, the active environmental protection programs implemented in three former ministries were updated. These efforts led to the formulation of "The Environmental Protection Improvement Program for the Enterprises of the Ministry of Metallurgy and Machinery Industry located in the Katowice Voivodship, 1981-1985."

This program contains the following directives: liquidation of obsolete production technologies, modernization of the installed environmental protection equipment, management of industrial waste, and reclamation of postindustrial areas. The realization of this program would have required 14 billion zlotys in the years 1981 to 1985. I am purposefully using the phrase "would have" because in the current economic situation and in the conditions of reform the problem of including such investments in the central planning will be discussed at the government meeting and the decision will be made when the plan for the years 1982 to 1985 is formulated.

The fulfillment of tasks in this program will allow the following results: annual reduction of dust emission by nearly 50,000 tons--that is, by 29 percent as compared with 1980; annual reduction of sulfur dioxide emission by 14,500,000 tons, or by nearly 14 percent as compared with 1980; daily reduction of sewage drained into surface water by 27,000 cubic meters, or by 5 percent as compared with 1980; and reduction of pollutant loads in sewage--suspended matter, 3,570 kg per day; heavy metals, 1,100 kg per day; phenol, iron compounds and other impurities--constituting a drop by about 10 to 20 percent as compared with 1980.

For activities regarding the liquidation of facilities and equipment harmful to the environment, implementation began in 1981. In the Katowice Voivodship, for example, the following departments particularly harmful to environment were closed: shaft furnace at the Szopienice HMN [Nonferrous Metals Foundary]; lead scrap processing line at the Wtormet Enterprise in Radzionkow; in coking plants at Knurow (1 battery), Radlin (1 battery), Walenty (2 batteries), Debiensko (1 battery); also agglomerating plant at the Kosciuszko Foundry (in 1981); and, temporarily, blast furnaces at Pokoj, Kosciuszko and Bobrek Foundries as well as seven open-hearth furnaces at the Pokoj, Bobrek, Florian, Batory and Zawiercie Foundaries.

The following shutdowns are planned for the years 1982 to 1983: open-hearth furnaces at the Bobrek and 1 Maja Foundries; rolling mill at the Florian Foundry; sulfuric acid manufacturing plant and fluidized-bed oven with equipment for manufacturing of chamotte products at the Szopienice Nonferrous Metals Foundry; induction furnace at the Dziedzice Metal Rolling Mill; and Mandheim furnaces 1 and 2 at the Chrzanow Refractory.

First Projections

In equipping enterprises for environmental protection, the program contains 195 tasks addressing the following actions: water pollution controls, 95 tasks; construction and modernization of sewage treatment plants, 40 tasks; improvement of water-sewage management, 25 tasks; waste management, 15 tasks; protection zone management, 10 tasks; other modernization, 10 tasks. The greatest number of tasks concerns steel manufacturing and metallurgy, 85 tasks for the total sum of 7.2 billion zlotys; nonferrous metals mining and mills, 35 tasks for 5.3 billion zlotys; and machinery industry, 31 tasks for some 1.2 billion zlotys.

The following are some goals projected for completion in the years 1982 to 1983: modernization of slag management and dust removal at the Pokoj Foundry steam-generating plant; modernization of dust removal equipment at the Zawiercie

Foundry electric-furnace steel mill; modernization of flow-line systems, ventilation and dust removal equipment at the agglomerating plants in sulfuric acid manufacturing enterprises and at the Zinc Foundry in Miasteczko Slaskie; modernization of fluidized-bed oven lines at the blende roasting plants and liquid sulfur dioxide plant in the Szopienice Nonferrous Metals Foundry; construction of dust removal equipment at the Zygmunt Foundry casting plant; modernization of exhaust gases removal systems at the rotary kilns and modernization of sewage disposal at the Gorka Heat Resistant Raw Materials Plant; and modernization of filters at the electric power and heat-generating plant and of the entire system of protective zones management at the Katowice Foundry.

Huge Resources Are Needed

The effects of implementation of this program will be visible after 1985, because the program also covers tasks whose completion is projected for the years 1985 to 1990. The effects will even be greater as a result of a projected liquidation of outdated facilities and equipment in the years 1984 to 1985, which are not covered by the discussed program.

The Ministry of Metallurgy and Machinery Industry has recently made a number of decisions that caused the industrial production in the Katowice Voivodship to drop rather than increase. It will be further reduced. For example, in the Katowice Foundry, the projected ultimate production of 9 million tons will be reduced to a maximum of 6 million tons due to the realization of the second phase.

Considering the high level of facility and equipment deterioration as well as the demands voiced by the public, the full realization of the program definitely requires high financial and technological outlays.

A deputy of the Voivodship People's Council [WRN] mentioned Japan, that we should follow that country's example. Others believe that resources are not always needed, that good intentions will suffice. It must be responsibly stated that we know how things are done in Japan. Our engineers and our enterprises are capable of the same. The costs of the environmental protection equipment installed in Japan and in other highly industrialized nations reach 40 percent of the value of the industrial facilities. Any other data are incorrect, unless we want to fool ourselves. The costs of equipment that was supposed to protect the environment so far have oscillated between 8 and 10 percent of the total value of our investments; they were actually equipment in name only. The use of proper technology and the modernization of industry in highly industrialized states are possible due to existing potentials and accumulated resources; they allow for spending the environment protection minimum of 40 percent of the outlays for investments.

We Do Not Run from Accountability

Naturally, good intentions, proper maintenance of technological systems and organizational activities also are important; however, they will not solve the problem. It is necessary to be aware in these economically critical times when it may be necessary to use huge outlays, how much we lack these outlays.

Therefore, we will go in two directions. First, there is reasonable reduction of production, but not stopping it--as it happens--when the time is the least favorable. We mean, then, reduction as well as noninvestment in this region and optimally possible installation of new equipment coupled with modernization. Obtaining the already mentioned 14 billion zlotys in the years 1981 to 1985 will require a tremendous effort.

I consider this program as an optimal one at present. But facts and not words must confirm the truthfulness of our activities. The facts will be confirmed in a couple of months when we present our report for 1981. I wish to suggest that WRN discusses this report at its session during the first quarter of 1982. We will report on our fulfillment of the tasks for 1981. We will also inform WRN if and what kind of resources we were able to muster in order to continue the program in 1982 and beyond.

We will attempt to complete the program fully, which perhaps does not meet the needs but which we even may exceed, for it can be fulfilled both technically and technologically.

8609
CSO: 5000/3007

OFFICIAL CRITICIZES PESTICIDE USE, NOTES UPCOMING LAWS

Mexico City EXCELSIOR in Spanish 3 Feb 82 p 1-4

[Article by Mario Ruiz Redondo]

[Text] Pesticides and related toxic substances that are prohibited in the United States are being used without restrictions in Mexican agriculture and the soils in some regions are polluted, the under secretary for Improvement of the Environment of the SSA [Secretariat of Health and Assistance], Manuel Lopez Portillo, stated yesterday.

The problem exists especially in the great agricultural regions of the north, "where pesticides are often imported from the United States. Sometimes they use types that are prohibited in the neighboring country," he said and he added:

"This has important consequences because when we try to sell our farm products in the United States, they say they not buy them."

The negative reply by U.S. authorities stems from the fact that they have very rigid standards, he remarked; and explained that when they analyze our vegetables, they declare them to be contaminated by excessive pesticides and they refuse to allow them in. This has important economic repercussions for the economy of producing states.

He asserted that there is no doubt there are toxic substances and pesticides that can cause serious harm when incorporated into man's food chain.

The official confirmed that the SMA [Secretariat for the Improvement of the Environment], in coordination with the Secretariat of Agriculture and Water Resources, is working on a new regulation that will list toxic substances and pesticides recommended for use in domestic agriculture. He felt that the U.S. Government could not be blamed if some Mexican farmers buy the prohibited toxic substances and pesticides.

Lopez was optimistic that the new regulation "would overcome an important obstacle and at the same time provide more precise control and avoid polluting the soil as much as possible."

Agreement With the United States

The assistant secretary for environment stated that considering the magnitude of the problem, an agreement had already been signed between his agency and the Environmental Protection Agency and the Food and Drug Administration of the United States to establish direct communications so that both sides could take action whenever necessary.

"The first shipment of the current catalogue prepared by U.S. authorities on available pesticides and toxic substances and those prohibited for use in agriculture is expected soon," he said.

The official said that "in our own legislation, in the regulation we must prepare, this up-to-date information will be set out, and it will permanently prevent the use of toxic substances that are harmful to health since these chemical products act in one way or another within the food chain. He stated that both toxic substances and pesticides should be used rationally, with great care, and above all with provisions established among interested institutions allowing all pertinent technical opinions to directly influence decisions as to which toxic substances can be used on crops.

New Regulations

The head of the SSA indicated that the new regulation containing the statute for the protection of the environment will be issued in May at the latest, and they will deal with smoke, dust, gases, water, solid waste, and noise, to which cemeteries dating from 1936 will be added since they affect the environment to a great extent because of organic wastes.

He explained that despite difficulties existing within his agency because of lack of personnel during 1981 over 3,000 companies were fined by the Secretariat of Health and Assistance for failing to comply with environmental legislation to varying degrees.

Lopez Portillo said that there is constant communication with industry in order to ensure compliance with recommendations for the installation of antipollution systems. "We cannot make agreements on matters that require compliance. This is just a mechanism for agreement and conciliation so that we all assume responsibility."

He indicated that reasonable timetables are granted to private industries that make commitments. "We have many incentives to induce them to take action, but in no way can we allow them to pollute."

9015
CSO: 5000/2060

DEVELOPMENT OF HYDRAULIC NETWORK OUTLINED

Casablanca MAROC SOIR in French 14 Jan 82 pp 1, 3

[Article by Marie-Odile Durrande]

[Text] A measure of the import of the terrible drought the country has been experiencing during the past few months is the resolution: Morocco wants to step up the development of its hydraulic network. The 1981-1985 Five-Year Plan, with an overall budget fixed at 110 billion dirhams, will devote 4 billion dirhams to this sector over a period of 5 years. Beginning in 1982, the construction and development work of 13 new dams will be launched.

The hydraulic policy is to be oriented principally in three directions: improvement in the supply of drinking water to cities and industrial water to large industrial complexes; increase in energy production through the hydraulic dams; and expansion of irrigated land as a whole.

To these three principal goals will be added the maintenance and renewal of our hydraulic heritage and continued research in the fields of hydrology and hydrogeology. Lastly, and this is not the plan's least innovation, studies will be made with a view to constructing small dams, called "hillside dams," and spreading the flood waters of rivers to promote agriculture in arid areas.

Although the objectives established in connection with the mobilization of our hydraulic resources are not among the plan's five official imperatives, one can, nevertheless, be sure that they are in keeping with two of those imperatives: improvement of the territory and regional development (the other three are: territorial defense, a boost in the economy and the elimination of social inequalities).

Morocco has potential mobilizable hydraulic resources of about 21 billion cubic meters of water per year, a relatively high figure for a country with a sizable semiarid zone. An average of 7.5 billion cubic meters of this total annual volume is controlled by about 30 dams. Thus, with 500,000 hectares of irrigated land devoted mostly to export crops, an annual production of 1.5 billion kWh of electricity and assurance of an ample supply of drinking water, Morocco has been able to take advantage of its hydraulic potential.

Concern about development and high oil prices, added to extensive drought, are some of the factors which induced the Moroccan leaders to strengthen their hydraulic policy with initial construction, in fact, dating from the time of independence.

From 1978 to 1980 the three-year plan saw the completion of six of the nine dams originally forecast. The last three are now in the final phase of construction. May we count on equally satisfactory results from the upcoming five-year plan? More complete and of broader scope, the latter, in any case, is more ambitious.

Credits assigned to the construction of dams represent 84 percent of the total package of the hydraulic sector. First consideration is being given to the completion of the three dams underway: the Sisi Driss Dam on the Wad Lakhadar which will compensate the enormous Ait Chouarit Dam and will particularly assure a flow of water to the Rocade Canal; the Tamzaourt Dam on the Wad Issen which will permit the irrigation of 9,000 hectares of land in the Souss plain as well as supply a continuous flow of drinking water to Agadir at the rate of 300 liters per second; and the restoration of the highways flooded by the upper section of the reservoir of the Idris I Dam. An initial group of four new dams are thus to become operational during the course of the plan. The south will be the first to benefit from this effort: in the Safi and Agadir region the Safi Dam, built in 1965, retains 2 million cubic meters per year, and this satisfies the water needs of the city and the Moroccan Chemical Complex. However, the installation of new plants and, particularly, of Moroccan Phosphorus plants 1 and 2 indicated that the capacity of the present reservoir would be completely taken up by 1985. The supplementary Safi reservoir will thus make it possible to offset the shortage of water in the summer when irrigation of the Doukkala area is stepped up and during the winter when the canals are shut down (estimated cost: 50 million dirhams).

The Dkhila Dam, located downstream from the Tamzaourt Dam, will supply drinkable water and will irrigate the Agadir area (cost: 65 million dirhams).

In the north the M'Rader Dam is expected to assure a continuous flow of water to Nador and its steel complex. This dam will make it possible to overcome the difficulties created during cleaning operations and, consequently, of the stoppage of Mechra Hamadi Dam, located downstream. For this small project, whose reservoir will reach a volume of 4.25 million cubic meters, a credit of 70 million dirhams will be allocated.

Again in the north, the Touahar Dam will be built to supply drinking water to Taza, irrigate an agricultural perimeter of 3,350 hectares and produce an average of 40 GWh per year (cost: 110 million dirhams).

The plan calls for a second group of projects whose completion will come after 1985. Essentially, these will be large dams capable of supplying drinking water, irrigating the neighboring land and producing power. Nine dams are contemplated.

The dams on Wad Martil and Wad Hachef will supply drinking water to Tetouan and Tangier respectively (with more than 3,000 hectares of land irrigated in addition near Tetouan).

More to the south, in Kenitra Province, the M'Jara Dam, a gigantic hydraulic reservoir of 3.8 billion cubic meters, is expected to produce 400 GWh per year through the use of a plant working in conjunction with the dam and will provide irrigation for 100,000 hectares on the Gharb Plain. This project, the program's major item, will require an investment of about 2.4 billion dirhams, 1.4 billion of which is to be allocated during the upcoming plan.

Water requirements have been continually increasing between Rabat and Casablanca: the raising of the Sidi-Mohamed-Ben Abdellah Dam, to begin in 1984 to satisfy the water demand, is expected to be completed in 1987. It is anticipated that the cost will be 150 million dirhams, 90 of which will be allocated after expiration of the plan.

The Zerrar Dam, on Wad Ksob, is called upon to play a triple role: supply drinkable water to Essaouira, keep the future phosphate complex of Meskata supplied with industrial water and irrigate 1,000 hectares of land. Credit for this comes to a total of 380 million dirhams, 320 million of which will be needed after 1985.

In the Fes area located in the interior of the country, the M'Dez Dam (550 million cubic meters and 50 GWh per year) and the diverting of Matmata, which consists of altering the course of the Sebou waters from the Ait Youb Dam to the reservoir of the Idris I Dam (725 million cubic meters of reservoir water, an additional 300,000 hectares irrigated and 270 GWh per year), will cost 400 million and 90 million dirhams, respectively, by 1985.

In Azizal Province, in the south, the Ait Chouarit Dam, whose construction began in 1978, will not be completed until after the expiration of the five-year plan. Its impact on the region's development will be considerable inasmuch as it will supply water to Marrakech, the Central Houz perimeter, the Lakhadar perimeter and other sites. With an overall retention of 350 million cubic meters per year and a hydroelectric plant with a capacity of 115 MWh per year, this project will come to 690 million dirhams of which 110 million will be required after 1985.

Lastly, the Dcher El-Oued Dam will normalize the waters of the upper basin of the Oum Er-Rbia for agricultural and energy purposes. Estimated cost: 250 million dirhams as part of the plan and an additional 240 million after termination of the plan.

8568
CSO: 5000/5006

STOPPED-UP SEWERS POSE HEALTH PROBLEM

Luanda JORNAL DE ANGOLA in Portuguese 2 Feb 82 p 2

[Article by G. Miranda: "Still Another Lack of Attention"]

[Excerpts] The sewers, ditches, puddles and "rivulets" are one of the small (large) problems affecting our capital city. I judged it useful to write about their consequences, to alert the proper authorities about still another deficiency to which attention has not been paid. As a good example of the situation, I chose the Nelito Soares district because I think that the problem is apparent there in its utmost seriousness.

"Rivers" of greenish water run in the streets. They carry revolting flotsam, such as feces and putrefied detritus. In the morning, housewives put out their laundry; others pound corn and other products, prepare fish or manioc and set them out to dry in the sun. At the same time, the flies that swarmed on the rivulets and puddles fly over and descend on domestic implements and foods that will be consumed by the people and especially the children of these women. In the afternoon, kids come back from school and get together to play ball, trying not to let it fall into the stagnant waters; however, the ball seems to insist on frequently ending up there. On weekends, the spectacle is even more fascinating: all efforts not to have the ball fall into the rivulets and puddles are frustrated; people play into the water itself, splashing mawkish water and mud all around, hitting passers-by with the ball, throwing it into surrounding homes through open windows, breaking the glass of closed ones, all the while carrying all the garbage accumulated outside into these very homes.

This is a partial picture of what happens during the "rainy season" (stopped-up sewers), a picture that is repeated in various other districts of Luanda more often than the seasons of the year (and this is where our problem begins). Let's see:

It has happened that following the "calamity" caused by the stopped-up sewers, the competent structures do come to repair the damage. However, the process is constantly repeated, with the "game" going on year after year! Curiously, however, this never happens in anticipation of the "calamity."

A number of questions must be asked: is the problem being faced in incorrect fashion? Or is it that it only dawns on officials when it is too late? Should it not be confronted in more efficient, preventive and definitive terms? Our already poor health--caused by the undernourishment to which the entire Angolan population has been subjected on account of its economic underdevelopment--plus the evils of the "greenish waters" perforce produce a situation that goes counter to the meaning of the slogan "economic organization and popular vigilance" proclaimed for the current year. The problem really deserves a better solution, and I don't think it is a very difficult one.

CSO: 5000/5668

EXPERT CAUTIONS ON THREAT TO LAND RESOURCES

Kaduna NEW NIGERIAN in English 24 Jan 82 p 4

[Article by Clement Agba]

[Text]

A Senior Forestry Official has called for massive support from the rural communities and the governments of the federation, to combat the threat against our land resources.

According to a 1977 estimate more than 300,000 square kilometres of the land mass in the country has been rendered arid by desert encroachment, drought as well as activities of the farmers and cattle rearers.

Speaking to the Sunday New Nigerian in his office in Lagos the Assistant Rector of the Federal Department of Forestry, Mr. Kola Aladejana revealed that even trees planted to ward off desert encroachment were destroyed by the local populace in their search for firewood.

Mr. Aladejana said that 15.5 million people spread across Sokoto, Kano, Kaduna, Bauchi and Borno were affected by the land rendered arid in parts of the country.

In order for people at the grassroot to be made aware of the aims and objectives of the afforestation scheme, he recommended that a sustained and well articulated publicity should be mounted throughout the country.

The forestry chief observed that because of the strategic place of the local governments as the nearest authority to the people whose massive participation was essential to the success of the afforestation scheme, there was need for the committee to work closely with state governments to remove constraints facing local governments in their participation in the scheme.

The National Committee on Arid Zone Afforestation now, headed by the Vice Chancellor of the Ahmadu Bello University (ABU), Zaria, Professor Ango Abdullahi was set up in December of 1977 with all the chief conservators of forests from the 19 states as members.

The committee took off in 1978 with an annual allocation of 7 million Naira while 2 million Naira has been earmarked for the operations of the committee this fiscal year.

But Mr. Aladejana said that the committee has been having difficulties recruiting staff to execute its projects because it was not in a position to offer workers permanent appointments.

It is understood that even staff from state or federal department of forestry are equally reluctant to accept secondment to the afforestation committee for the fear of having their years of service broken.

CSO: 5000/5665

BRIEFS

DROUGHT THREAT--Maize farmers are sustaining more losses every day as drought continues in main production areas, Maize Board general manager Hendrik Nel says. He told Reuters by telephone from Pretoria yesterday if general rain did not fall in the main maize growing region by the end of February, the 1981/82, September to April, crop would be severely damaged. There has been no general rainfall since September, he noted. [Text] [Johannesburg THE CITIZEN in English 19 Feb 82 p 21]

CSO: 5000/5664

REPORTAGE ON EFFECTS OF DROUGHT

Trek To Save Cattle

Salisbury THE HERALD in English 10 Feb 82 pp 5, 6

[Text] Large numbers of cattle in drought-stricken Matabeleland may have to be moved to survive the winter, the Commercial Farmers' Union president Mr Jim Sinclair, said on Monday.

Commenting on the drought, he said grass and water supplies were of major concern in many parts of Zimbabwe, particularly in the area southwest of a line from Umtali through Gwelo to Binga. The south of the country was the worst-affected.

"The potential of Zimbabwe's crops is now at a very critical stage. While parts of the north of the country are receiving some welcome rain, widespread soaking rains over a period of days are required this week to save the already reduced potential of many crops," he said.

The maize crop had already dropped to 60 percent of its yield potential. Much of the crop was now pollinating, and high moisture, both in the atmosphere and in the ground, was required for optimum pollination.

Army Urged To Help

Salisbury THE HERALD in English 10 Feb 82 p 6

[Editorial]

[Text] The fact that butchers are now getting their full quota of beef would be good news in normal times, but times are not normal.

The increased supply results from the greater number of animals sent to the CCC for slaughter, and the bad news is that the drought is to blame. Farmers and ranchers are scared that they will not be able to feed all their cattle.

This unfortunate situation comes at a time when strenuous efforts are being made, with some success, to build up the country's cattle herds after the war losses. Given ideal conditions, it would have taken several years to get back to normal. Now it will take considerably longer.

The Minister of Agriculture, Senator Norman, has said that in the badly affected areas the choices are to feed the cattle, move them to other areas, or slaughter them. He wants to reduce the slaughter of breeding cows to a minimum.

Some years ago the country faced a similar problem, and large numbers of cattle were moved from Matabeleland to Mashonaland. With the strain on the national transport fleet, such movement might be more difficult today, but it is good to know that it is being considered.

Perhaps the army could help by preparing watering points and outspans and accompanying the cattle if they were moved on the hoof.

Situation Critical

Salisbury THE FINANCIAL GAZETTE in English 5 Feb 82 p 1

[Text] Farmers throughout Zimbabwe are facing a critical situation this season. They are desperately waiting for more rain to break the present widespread drought conditions--and hoping for an announcement of new prescribed prices which were due to be set this month by the Ministry of Agriculture.

The drought, which was temporarily broken by the December rainfall, has set in again. At present there are no meteorological signs of favourable convergence conditions needed to relieve the hot, dry weather now affecting crops all over the country.

"If farmers don't get good rains from now until March the agricultural position generally will be disastrous for the bulk of our maize crop. It must rain by then," said Mr John Laurie, vice-president of the Commercial Farmers Union this week."

Not only maize is affected. Drought is seriously affecting cattle in Matabeleland. All other crops are also suffering.

Recently, Midlands MP Mr Henry Elsworth (RF) warned that there would be "mass bankruptcy" in the cattle industry this year unless beef producers received a price increase of about 30%. He said in November that cattlemen were reaching the point of no return and that the industry was nearing collapse.

Since then the drought and rising costs have worsened the situation for cattlemen and many other farmers.

Although cotton appears to have suffered least this season, the crop will be down over last year's figures. Maize at the best estimate will be only about 60% of last year's crop--and this estimate will drop unless good rains fall from now until well into March, said Mr Laurie.

The cattle position in Matabeleland is very serious and de-stocking operations will probably be necessary this winter.

Wheat will almost certainly have to be imported and the soyabean crop will also be well down over last year's figures, according to CFU estimates.

During an interview with The Gazette Mr Laurie said that an aerial survey of the main cropping areas had been carried out two weeks ago by Mr Jim Sinclair, president of the CFU; Mr Bill Francis, chairman of the Grain Producers' Association and Mr Warwick Hale, chairman of the Oil Seeds Association, to assess the situation.

Since then the position had worsened with hot, dry conditions throughout the country affecting most farmers. Assessments were:

--Maize: October-planted maize had been badly affected by the drought. November-planted crops were tasselling now and desperately needed good, extended rains. The third plantings established in December were "entirely dependent" on good rains from now until April to give any useful yield.

Said Mr Laurie: "Our estimates show that we can only expect a yield of 60% of last year's maize crop at best. But if we don't get more rain now the position will be even worse."

--Cotton: Due to drought conditions about 20% of this crop missed early germination and there was now a poor yield potential. However, the early crop had shown a remarkable recovery in areas where there had been sufficient January rainfall. If the rains continued this month there were "indications" of an average yield.

--Soya: As a result of the drought, yield would be "significantly" down despite a large increase in hectarage planted this year, he said. A crop similar to that of the 1979/80 season of 90 000 tonnes could be expected.

--Beef: The drought situation had been found to be "extremely serious" in the south and west of Zimbabwe and continued to be so. Some areas of Matabeleland had recorded less than 100mm rainfall so far.

Mr Laurie said: "Good significant rains from this week onwards are essential over a prolonged period to provide not only grazing now, but also for winter bulk. If these do not materialise, then major destocking operations will be necessary in some areas to avoid heavy losses from cattle starvation."

--Wheat: Unless irrigation dams filled this season and other factors also improved, he said that Zimbabwe would once again have to import wheat.

"We are short of wheat now. But any increase in the winter wheat crop entirely depends on the availability of water in the dry season, prescribed price increases, the cost and availability of combines, chemicals, irrigation pumps, equipment and electricity."

He added that the internal consumption of bread had increased so much that unless there was a big increase in wheat hectarages planted this year its importation would be unavoidable. Bread consumption in urban areas of Zimbabwe this year was running at the same level as that of maize meal.

"This is similar to the trend in other African countries, such as Zambia, and it is likely to continue to increase," said Mr Laurie.

Crisis Aid

Salisbury THE HERALD in English 11 Feb 82 p 1

[Text] Faced with a drought crisis in seve[illegible] parts of the country, two Cabinet ministers yesterday announced separate emergency plans to help farmers in the worst-hit areas.

The Minister of Agriculture, Senator Denis Norman, announced the setting up of a cattle relief committee.

And the Minister of Natural Resources and Water Development, Senator Joseph Msika, said an emergency borehole drilling programme was being launched.

Both announcements were made in the House of Assembly.

Senator Norman was answering a question from Mr John Nkomo (ZAPU, Matabeleland North). He said a report received from the Cold Storage Commission that morning indicated that the grazing and water situation was critical in the south of the country.

Areas worst hit included Nyamandhlovu, Tjolotjo, Plumtree, Norton, Kezi, Gwanda, Beitbridge, Belingwe South, Filabusi and Wankie.

Replying to a question from Mr S. Matibenga (ZANU-PF, Midlands), Senator Norman said the drought situation was being kept under review. When a more definite picture emerged he would discuss the issue of drought relief with his Cabinet colleagues.

The cattle relief committee would study ways to help drought-hit farmers, he said.

Mr Henry Elsworth (RF, Midlands) asked whether there were plans to save the national breeding herd which would be one of the first victims of the poor rainfall.

The minister said there were no plans drawn up. "But we are watching the situation very carefully," he said. He had been in touch with the Beef and Livestock Committee in Bulawayo that morning and would be holding discussions with the Cold Storage Commission today.

Answering a question from Mr Matibenga on what contingency measures had been taken to alleviate the likely shortage of water this year, Senator Msika said drilling rigs had already been hired from private contractors to increase drilling capacity.

At present there were 15 Government and 29 contract rigs, including one high-speed air drill operating in the communal lands.

Seven drilling rigs from British aid and one from UNICEF would also be received in the near future and drill crews to operate these new rigs were already under training, Senator Msika added.

Negotiations were underway with other countries for the supply of further drilling equipment.

--Zimbabwe will be importing milk powder and butter oils later this year because of the national dairy industry's inability to meet local demand, Senator Norman said.

Speaking during debate on the $1 525 000 additional estimate for his ministry, Senator Norman was asked about the $200 000 loan for the Dairy Marketing Board.

Milk was short, he replied, and milk powder and butter oils for recombining to turn them into liquid product would have to be imported "later this year."

This would "hopefully" be funded by aid grant, he said.

The $200 000 was for recombining plant equipment and plants would first be set up in Salisbury and Gwelo and later "we may have a look at Umtali."

Rain in Bulawayo

Salisbury THE HERALD in English 12 Feb 82 pp 1, 3, 5

[Text] Bulawayo--It rained in Bulawayo yesterday--for the first time in more than two hot, dry weeks--and the city rejoiced.

So did farmers, for the rain fell over most of central Matabeleland, but it was erratic and mainly light. An officer of the Meteorological Service Department said: "If anyone got 25mm I would be surprised."

The band of rain has moved away to the north, and today Bulawayo and its surrounding districts will be having guti weather and cool winds.

The return of the rain depends on such imponderables as whether the pressure falls again and sends the inter-tropical convergence zone back to Bulawayo.

It was rising pressure on the Natal coast that pushed the rain belt up through Bulawayo (after it had earlier drifted southwards) and intensified the convergence.

The gusty winds that swept through Bulawayo yesterday were caused by the pressure rise, the Met man said.

Drought May Kill Chance To Build Herd--CFU Head

Zimbabwe's commercial farmers yesterday expressed fears that efforts to rebuild the national beef herd may be set back if the drought continues.

In an interview with Ziana, the president of the Commercial Farmers Union, Mr Jim Sinclair, said there had been "substantial cattle slaughtering among commercial farmers in the country."

The farmers did not have enough grazing land and water for their animals because of the drought, which had worsened in some areas.

"We feel that if this drought continues, rebuilding the herd could be delayed for a further period. This may take us another four years before we could be self-sufficient in beef," he said.

Mr Sinclair said the slaughtering rate had increased from an estimated 320 000 to 500 000 animals a year adding that this was at the expense of the national herd rebuilding programme.

He said although the beef shortage had been estimated to end within the next two or three years, he did not see how this could be achieved under the present circumstances.

"Some people might have seen a lot of beef around and think the situation has eased."

On the contrary, this situation was a disaster because it meant a gloomy beef situation for the future.

The CFU chief also welcomed emergency plans announced by two Cabinet ministers in the House of Assembly on Wednesday to help farmers in the worst hit drought areas.

He said "The move is most welcome indeed and it could not have come at a better time."

Mr Sinclair said the plans would help the farmers in preserving their herds.

Only Eight Dams Full

Only eight of Zimbabwe's 46 major dams are full, according to a report of the Chief Hydrological Engineer, Mr T.B. Mitchell.

A further 15 are more than 90 percent full. Only one dam, Mazoe, had an increase in storage in the week ended Monday and is now 86,2 percent full.

CSO: 5000/5666

JURISTIC VIEW OF GOVERNMENT ROLE IN ENVIRONMENTAL PROTECTION

Leningrad VESTNIK LENINGRADSKOGO UNIVERSITETA: EKONOMIKA, FILOSOFIYA, PRAVO in Russian No 3(17), Sep 81 (manuscript received 1 Apr 81) pp 77-82

[Article by Yu. A. Petrov: "The Environment and Its Protection Under Administrative Law]

[Text] Under the conditions of present-day scientific and technical progress, the constant growth of productive forces and urbanization of the nation's populace, the problems of environmental protection, particularly in the cities, are assuming exceptional importance. One of the key jobs in solving them is assigned to Soviet Science. L. I. Brezhnev underscored it at the 25th CPSU Congress: "Soviet scientists must not overlook the environmental problems which have been recently getting worse.... Improvement of the socialist utilization of nature...is an important task of the whole complex of the natural and social sciences."[1] At the present stage of our society's development--and this was emphasized at the 26th CPSU Congress--the problem of more rational and economical utilization of all resources, natural resources included, is a particularly acute one.[2]

Matters of environmental protection are examined and resolved by naturalists, economists, and representatives of technical and other branches of scientific knowledge who are unanimous on the point that the protection of the environment can be assured only through the employment of complex measures (biological, chemical, economic, organizational, public health and others).

It is the job of jurisprudence to translate ecological and social demands into the language of law, i.e., to transform them into legal rules. Administrative law, being the effective regulator of social relations in the realm of government, is capable, in interaction with other resources of government, of ensuring ecologically proper behavior in the field of environmental protection.[3]

A subject of relations with respect to protection of the environment is the government or social agency (functionary) that is endowed with plenary authority. The relations which take shape in the realm of the executive and administrative activity of government organs comprise a relatively detached group with a particular specific nature and constituting a stable unity. They are recognized as being the administrative-law relations.

Proceeding from the relative independence of administrative rules which regulate relations in the field of environmental protection, one could set them apart as an independent institution of administrative law.[4] That institution, as it is conceived, consists of two groups of rules: 1) legal rules on environmental protection adopted by higher and local organs of state authority and implemented within the sphere of state control; 2) legal rules on environmental protection resulting from the legislative activity of government organs. Depending on what kind of environmental protection activity of government organs is regulated by the respective rules, one can divide them into three groups: 1) legal rules which regulate the legislative activity of government organs in the field in question; 2) legal rules which regulate their enforcement activity in a given sphere of social relations; 3) legal rules which provide for the application of measures of administrative constraint, i.e., rules which regulate the jurisdictional activity of organs of state and, sometimes, social control in the field of environmental protection.

Administrative-law protection of the environment should not be reduced to just jurisdictional activity of government organs, i.e., to applying measures of administrative constraint in relation to violators of nature protection legislation. Such a narrow concept of the environmental protection method under consideration here does not reflect its true content, which is based on the diversity of the Soviet government's executive and administrative activity.

In order to explain the specific nature of administrative-law protection of the environment one has to compare it with protection afforded by other sectors of the law, first and foremost with civil law. Protection of the environment via the resources of civil law is, first of all, the protection of socialist state property inasmuch as the principal natural objects (the land, what lies beneath it, the waters, the forests) are the exclusive property of the Soviet state.

The characteristic of protection under civil law follows from the characteristic of the subject of civil law, which protects property relations by recognizing rights, by restoring violated rights, by suppressing actions which violate rights, by recovery of injurious losses, and by other methods provided by law. The principal purpose of the civil law method is full compensation of material damage to objects which are part of the environment. The method is effected by the submission of claims to court or to arbitration.

Protection under administrative law has as its purpose restitution on violation of a government order. For example, the protection of land and land use in cities by the administrative law method involves the organs of state control's revoking illegal decisions relative to land, made by lesser agencies and functionaries, and reinstating the infringed procedure for land use.

The administrative law method differs from the civil law method in that one of its purposes is the punishment of those guilty of violating the laws of environmental protection. This difference is characteristic of criminal law as well. Both administrative law and criminal law protection of the environment have a constraining character. But whereas the criminal law emphasis is on punishing those guilty of violating nature-protection legislation, the application of many provisions of administrative constraint aims especially at prevention, the suppression of violations and the reinstatement of relations with respect to environmental protection.

Criminal law protection is designed to deal with felonious encroachment. Criminal legislation covers many corpora delicti involving environmental objects (timber rafting or explosives operations violating laws for the protection of fish resources --RSFSR Criminal Code, article 165; deliberate spoilage of crops and damaging of field-protection or other plantings--article 168; illegal cutting of timber--article 169; contamination of water and air--article 223; deliberate destruction, disruption or damaging of natural objects--article 230, and others).

An analysis of the criminal and administrative legislation shows that an administrative infringement of the law can be cited for each offense in the area of environmental protection. The responsibility for them has its own specific features, however.

One of the main features of administrative constraint in the area of environmental protection is the multitude of agencies applying it. These are organs of state authority (rural and village councils);[5] government organs: having general competency (executive committees of local councils),[6] specially established (administrative commissions), sector organs (internal affairs agencies), numerous state inspections (fish protection, forest protection, public health and others); organs for the administration of justice;[7] and social organizations.[8]

Administrative constraint in the field of environmental protection can be defined as a method of affecting the conduct of subjects of the numerous organs and functionaries specially empowered for it. It comes through in the negative actions, personal or organizational, defined by the rules of administrative law, and has as its end purpose the correction and re-education of offenders as well as the prevention of offenses and onset of harmful aftereffects.

The content of administrative-law protection of the environment covers the jurisdictional activity of government organs and also their law-making and law-applying activity. We will examine the given elements of the content of administrative-law protection of the environment.

L. I. Brezhnev stated in his report to the 25th CPSU Congress: "We have produced legal rules in accordance with the new level attained by our society. Statutes have been prepared which are concerned with areas of life heretofore outside the scope of legal regulation, areas such as protection of the environment, including the waters, things underground, the air space and so on. It is a very good thing that we now have the substantiated legal rules to enable the purposeful pursuit of work for the protection of nature."[9]

A further stage in the development of nature protection legislation will be the adoption of an all-union act on the protection of the environment. The need for it is cited by everyone involved in such matters.[10] The lack of a unified all-union act on protection of the environment has a negative effect on the law-making, law-applying and jurisdictional activity of government organs, especially at the republic and local levels, since there is no provision for uniform understanding, acceptance and application of the rules which protect the relations in question.

Among the legal rules accepted in the process of law-making activity by government organs, the legislative rules which regulate planning procedure, construction design, activation and operation of production facilities taking ecological demands into account carry considerable authority. Government organs also accept the so-called technical-juridical rules (GOST's, cadasters and the like), which will be developed more extensively in the future.

Along with the all-round improvement of government organs' law-making activity, an important condition for achieving the goals of environmental protection is well organized activity with respect to application of the law, accomplished in this particular field of social relations through recording, planning, monitoring and inspecting and other functions.

At the present time much value is attached to studying the condition of the environment and the record of natural resources; without this it is impossible to implement effective environmental protection. In connection with this the function of accounting for land, water, forests, minerals and other natural riches, and the introduction of appropriate state cadasters must be put first and foremost. Thus, in 1977 the state agriculatural land cadaster[11] started functioning.

Such a job, too, as the planning of environmental protection measures can be done only if data on the status of natural resources are available. In the joint decree of the CPSU Central Committee and the USSR Council of Ministers dated 29 December 1972, "On Promoting the Protection of Nature and Improving the Utilization of Natural Resources,"[12] it is specified that the ministries and departments of the USSR and the councils of ministers of the union republics are obligated to provide for the development of long-range and annual plans for measures respecting the protection of nature and the rational utilization of natural resources. These plans are submitted to the USSR State Planning Committee simultaneously with the draft plans for development of the national economy. The composite long-range and annual plans for nature protection have to be worked out on the grounds of autonomous republics, krays, oblasts, major industrial centers and on the ground of the union republic as a whole.

Monitoring and inspection are principal functions of activity involved in applying the law in the field of environmental protection. The chief task of monitoring and inspection organs is finding deficiencies and violations. Prevailing legislation confers the functions of monitoring and inspection in the field of environmental protection on a broad network of government organs which can be broken down into organs of general, industrial, special, specialized and departmental (economy sector) competency.

Organs of general competency exercise supervision over the total environment in territories within their jurisdiction along with the performance of other types of executive and administrative activity. Thus, article 31 of the USSR Constitution of 1977 assigns to the USSR Council of Ministers the right, within the limits of its authority, to develop and implement measures for the rational utilization and the protection of natural resources. This group of organs also includes the councils of ministers of union and autonomous republics and the executive committees of local councils of peoples deputies.

Organs of industrial competency protect environmental objects within the scope of those organs' intersectorial functions. The group includes the State Planning Committee, Central Statistical Administration, State Committee for Construction, State Committee on Standards and others.

Organs of special competency carry on environmental protection in territories within their jurisdiction and are established specially and solely for such purposese (state committees for the protection of nature in the Ukraine, Belorussia, Lithuania, Moldavia, Azerbaijan, Georgia).

Organs of specialized competency, as a rule, protect individual environmental entities: land, minerals, waters, forests, the air and so on. This group includes: the Main Administration for Land Use and Land Organization of the USSR Ministry of Agriculture; the USSR Ministry of Geology; Committee for Supervision of Safe Working Practices in Industry and for Mine Supervision; the USSR Ministry of Land Reclamation and Water Resources; the Ministry of the Fish Industry; the USSR State Committee for Forestry; State Inspection for Checking the Operation of Gas Cleaning and Dust-Eliminating Equipment of the USSR Ministry of Chemical and Petroleum Machine Building; the Main Sanitary-Epidemiological Administration of the USSR Ministry of Health, which implements state public health supervision in the USSR; the USSR State Committee for Hydrometeorology and Environmental Control, which heads the service for observation and monitoring of the level of contamination of the atmosphere, the soil and the waters.

Organs of economy-sector competency exercise the protection of and provide for the rational utilization of such natural resources as are drawn into the sphere of their production activity. This group includes the economy-sector ministries and departments. Their authority extends only to enterprises and organizations within their jurisdiction. At the present time they are called upon to resolve complex problems in the management of the nature-protection activity of enterprises and organizations, which is promoting the establishment in many of them of special environmental protection divisions.

While there are a great number of organs taking part in environmental protection, there is no single planning-regulating, scientific-methodological, coordination and supervisory center endowed with suffucient authority for the true and efficient implementation of nature-protection measures on a government-wide scale. It is therefore necessary--and this is brought up frequently in the literature--to establish a single agency for environmental protection in the USSR.[13]

Having examined the goals and the problems of environmental protection, and its characteristics and substance in the government realm, one can define environmental protection under administrative law as the system of legal relations which accrue in the course of government organs' exercise, in keeping with ecological and social demands, of law-making, law-applying and jurisdictional activity to preserve, improve and build up the environment for purposes of further development of scientific and technical progress and enhancement of the life of the people.

FOOTNOTES

1. "Materialy XXV s'yezda KPSS" [Materials on the 25th CPSU Congress], Moscow, 1976, p 73.

2. See "Materialy XXVI s'yezda KPSS" [Materials on the 26th CPSU Congress], Moscow, 1981, p 109.

3. O. S. Kolbasov, "Legal Problems in Environmental Protection," VESTNIK AN SSSR, No 4, 1977, pp 64-70.

4. A. I. Kazannik, "Administrativno-pravovaya okhrana prirody basseyna ozera Baykal" [Nature Protection Under Administrative Law in the Lake Baykal Basin], Irkutsk, 1977, Part 1, p 72.

5. See, for example, "On Tightening Liability for Hunting Rule Violations, Evasion of Mandatory Submission to the State, and the Illegal Sale, Purchase and Treatment of Furs," VEDOMOSTI VERKHOVNOGO SOVETA RSFSR, No 15, 1972, p 1210.

6. See, for example, "Statute on Hunting and the Hunting Industry in the RSFSR," SOBRANIYE POSTANOVLENIY RSFSR, No 34, 1960, p 164.

7. See, for example, "On the Procedure for Applying Article 7 of the Decree of the Presidium of the USSR Supreme Soviet, 'Concerning Temporary Measures for the Conservation of Live Resources and the Regulation of Fishing in the Seas Adjacent to the USSR Seaboard'," VEDOMOSTI VERKHOVNOGO SOVETA SSSR, No 13, 1977, p 217.

8. See, for example, "Statute on Comrades'Courts," VEDOMOSTI VERKHOVNOGO SOVETA RSFSR, No 12, 1977, p 254.

9. "Materialy XXV..." op. cit., p 82

10. See, for example: N. D. Kazantsev, "On the Status and Problems of Scientific Research Work in the Field of Nature Protection Legislation," UCHEN. ZAP. VNIISZ, No 26, 1972, pp 122-128; G. N. Polyanskaya, "The Law Concerning the Protection of Nature in the USSR," Ibid., pp 129-138; Yu. S. Shemshuchenko, "Organizatsionno-pravovyye voprosy okhrany okruzhayushchey sredy v SSSR" [Problems Relating to Organizational Law in Environmental Protection in the USSR], Kiev, 1976, p 204, and others.

11. SOBRANIYE POSTANOVLENIY SSSR, No 19, 1977, p 119.

12. Ibid., No 2, 1973, p 6.

13. See, for example: G. A. Aksenenok, "Legal Warranting of the Complete and Most Efficient Utilization of Natural Resources, and the Protection of Them," in "XXII s'yezd KPSS i problemy kolkhoznogo i zemel'nogo prava" [The 22nd CPSU Congress and Problems of Collective Farm and Agrarian Law], Moscow, 1962, p 270, and others.

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INCREASE IN AMOUNT OF INDUSTRIAL WASTE IN WATERS NOTED

Helsinki HELSINGIN SANOMAT in Finnish 21 Jan 82 p 11

[Text] Industrial water consumption and the resulting stress on water courses increased significantly during 1978-80. During the same period, the industrial investments to protect waters, however, have declined further. This was revealed in a survey report published by the Waters Administration.

The organic material of the forest industry waste waters consumed 13 percent more water oxygen during 1980 than in 1978. The nutrient discharges increased by approximately 17 percent. The water consumption of the pulp and paper industry in 1980 was 10 percent bigger than in 1978.

The pulp and paper industry invested the most money in protection of waters in the recession years 1974-75. Then, money was invested particularly in developing processing technology, so that discharges into water courses would decrease. After this peak, the investments decreased to almost one-half and the water conservation funds have not been increased since even up to the level at the beginning of the decade despite the boom of 1979 and 1980.

For the other industries the peak in water protection investments was at the beginning of the decade. The investments have since gradually decreased.

The industry gives reports on their water consumption, waste water load and the water protection investments on a yearly basis. The Waters Administration has biannually since 1972 prepared statistics on this data. The latest water statistics are currently under preparation.

The industrial stress on the waters during the last decade was in decline up to 1977, and in some branches to 1978. After the economic recession of 1976-80, the revival of industrial production can be seen to be increasing water consumption and waste water flow.

The greater part of the increase took part as early as in 1979. Even though there was an increase in industrial water consumption in many plants water consumption per 1 refined ton decreased.

Along with the forest industry, other branches of industry have generally increased their activities which deplete oxygen from the waters, while adding nutrient dischargers. The effect of small industries has not been taken into account.

The report notes, however, that in comparison with the early part of 1970's, oil, iron, arsenic, cadmium and mercury discharges are clearly lower. The discovered discharges often are due to variations that have taken place in some plants. In addition to this they can be more temporary than the variations which affect organic material and nutrient discharges.

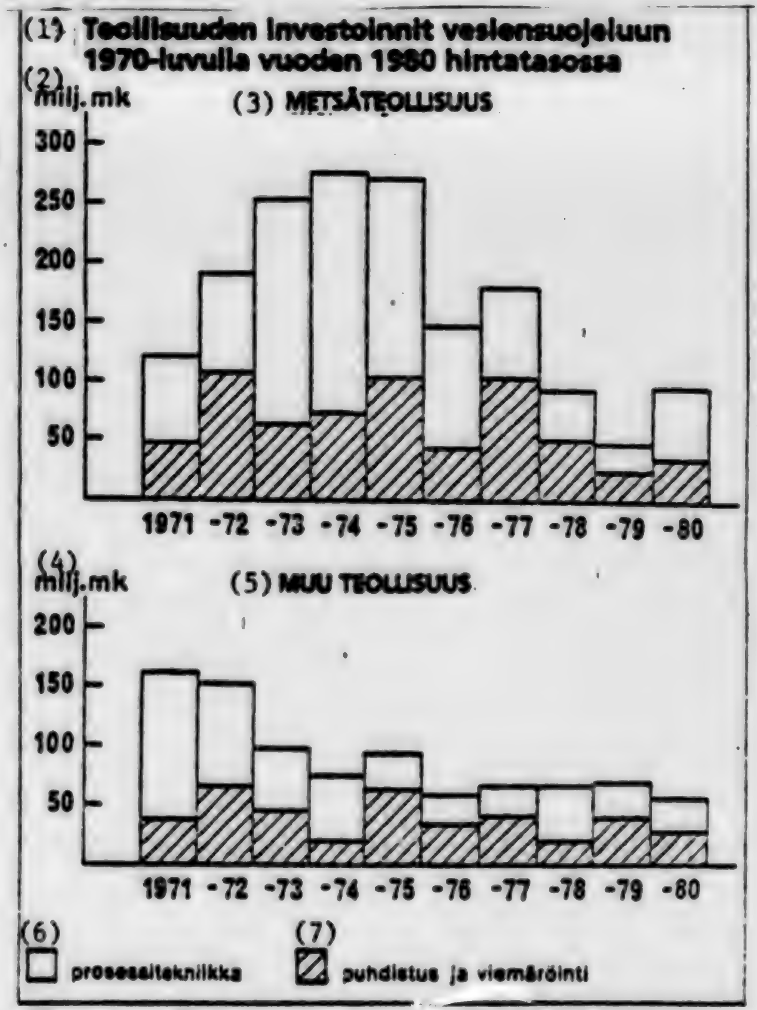
Pisciculture, particularly, increased the burden to water courses. Pisciculture doubled in the country from 1978 to 1980. At the same time the water consumption doubled.

The pisciculture plants burdened the Kymi River more than any of the other main water courses. The plants, which have submitted their annual reviews to the Water Department, in 1980 discharged into waters 16.4 metric tons of phosphorus and 83 metric tons of nitrogen. There were 5.8 metric tons of phosphorus and 29 metric tons of nitrogen discharged into the Vuoksi. The pisciculture plants burdened the archipelago waters of the Baltic Sea with 11.1 metric tons of phsophorus and 55.4 metric tons of nitrogen. In the northern part of the Gulf of Bothnia the corresponding figures were 4.1 and 20 metric tons.

Key:

(1) Industry's investment is water protection during the 1970's reflected on the 1980 price level.

(2) Million marks
(3) Forest industry
(4) Million marks
(5) Other industry
(6) Process technology
(7) Purification and sewage
(8) Figure 4 Industry's investments in water protection during the 1970's reflected on the 1980 price level



Kuva 4 Teollisuuden investoinnit vesiensuojeluun 1970-luvulla vuoden 1980 hintatasossa
(8)

The pisciculturists discharged into our main water courses a total of 52.8 metric tons of phosphorus and 263 metric tons of nitrogen. The figures do not include the discharges from those pisciculture plants which were not obligated to submit reports to the Water Department.

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MEASURES ANNOUNCED TO COMBAT POLLUTION

Monitoring of Industrial Wastes

Athens ELEVTHEROTYPIA in Greek 15 Jan 82 p 5

[Excerpt] A system for monitoring the wastes of all industries in Northern Greece is about to be installed and put into operation within the next six months.

This information was announced yesterday at a press conference by the minister for Northern Greece, Mr. B Intzes.

This system, which will operate electronically, will provide data and readings to an electronic brain located in the Ministry of Northern Greece.

During his conference [the minister] revealed that the air pollution caused by the chemical industry of Salonica, which operates next to a food processing plant, had corroded the iron on the frames of the doors of the latter.

Measures to Combat Attiki Pollution

Athens TA NEA in Greek 16 Jan 82 p 3

[Excerts] The government's announcement regarding the measures to be taken to combat air pollution is set forth below:

The condition of the environment of the larger cities of the country, but above all that of Athens--with the famous "cloud"--has reached apoint that seriously threatens public health and our very existence.

Solving the Problem

The government has decided to proceed immediately to solving the problem without making concessions to anyone, with the public interest and, above all, the health of the people as its only guide.

Measures

Two groups of measures will be applied immediately:

1. Anti-Pollution Measures

The group of anti-pollution measures will carry the most weight. It is one of immediate and permanent enforcement--with the objective for 1982-1983--of preventing the situation from worsening and of permanently eliminating the peaks of pollution of the present environmental crisis while at the same time building the foundations for the definitive solution of the pollution problem.

2. Emergency Measures

Until the above-mentioned measures begin to show results, when the limits of pollution reach elevated levels, which are critical to the health of the public, the group of emergency measures of limited duration--a matter of days--will be applied as a rule. The purpose of these emergency measures is, as far as possible, the elimination of the peaks of this problem and for this reason should not be considered as being radical but rather as measures of necessity and of a limited duration.

With the progress of investigations and research, with the systematic monitoring of the measurements and the responsible evaluation of the effectiveness of all kinds of measures through an open system of information, both groups of measures will complement each other and adapt to the real data.

A. Anti-Pollution Measures

A. 1. Measures for Industry

1. Systematic monitoring of the existing anti-pollution devices (filters, etc.), observance of environmental regulations regarding operation and requirement of supplementary anti-pollution devices for the limitation of all kinds of emissions according to conditions. Of particular importance in this sector will be the active participation of the Local Self-Government.

2. Intensification of controls in the operation of furnaces.

3. Installation of appropriate systems (i.e., automatic recording devices) for the monitoring of production variations and the observance of all limitations.

4. Strict control of the quality of authorized fuels.

5. Regulation according to conditions of the height of industrial unit chimneys.

6. Prohibition of burning automobile tires and other industrial refuse with adverse or unknown influence on the environment.

7. Designation and use of the economically and environmentally appropriate fuel.

A. 2. Measures for Automobiles and Traffic

1. Regular mandatory technical checking of vehicles in order to decrease the emission of hydrocarbons.

2. Improvement of the quality of fuel and alternate use of fuels.

3. Improvement in attractiveness and better coordination of the mass transportation system of the capital (EAS, ISAP [Athens-Piraeus Electric Railways], ILPAP [Electric-Powered Buses of Athens-Piraeus Area]) with the objective of increasing the average speed of the vehicles.

4. Improvement and incrementation of the public transportation "fleet" with special emphasis on electric propulsion.

5. Application of a program of appropriate traffic regulations for the priorization of the flow of public transportation (i.e., bus lanes running against the flow of traffic, streets for the exclusive use of buses).

6. Updating of the system of traffic signals in order to improve the flow of traffic and limit the frequency of malfunctions.

7. Implementation of a parking policy with a revision of the rate system in parking areas.

8. The enactment of time limits of circulation of special categories of vehicles (i.e., garbage trucks, trucks, military vehicles, etc.).

9. Systematic effort to combat the adulteration of fuels.

10. Stricter specifications for the importation of automobiles with environmental criteria in mind.

A.3. Measures for Heating

1. Strict specifications and control of the condition and operation of central heating furnaces.

2. Strict observance of the existing legislation regarding the prohibition of the use of heavy residual oil for central heating and smoke-measuring monitoring.

3. Programming of pre-heating and burning (i.e., thermostats and time switches, etc.)

4. Use of better fuel for central heating.

5. Reduction of the upper temperature limits in the heating of buildings.

6. The substitution of petroleum with manufactured gas in the areas where there exists a foundation for the gradual extension of the network.

7. Encourage the use of thermal insulation and modest types of energy for home use.

A.4. Urban Measures

1. Implementation of the Athens Regulatory Plan.

2. Systematic control, based on environmental criteria, of the use of ground space in the capital by districts and neighborhoods. Removal of users and operators generating high, local pollution.

3. Qualitative improvement of the urban environment of Athens (cleaning of façades of buildings, terraces, roofs, roads in open areas, etc.) based on environmental criteria.

4. Systematic planting in the urban conglomerate of Athens and environs (hills, mountains, etc.).

5. Systematic washing down of heavily travelled streets.

6. Extension on a large scale of the system of sidewalks and parks.

B. Emergency Measures

Their application on a scale is conditioned by the peaks of pollution.

As reference, the following limits are set regarding the average of levels of pollution:

a. Permissible limits, below which there will be no need to implement any measures. At the same time its maximum limits constitute a pollution alert.

b. Restrictive limits, which will activate the first step of emergency anti-pollution measures.

c. Emergency necessity limits, which will activate the second step of the measures.

The relation of the level of pollution and the application of the corresponding measures is not automatic. The application of the measures will always constitute a political decision after a careful evaluation of the readings, weather forecasts and other forecasts for smog conditions.

B.3. Exceptional Situations

During exceptional situations of protracted presence of a high level of pollutants and smog, in addition to he above restrictions, the measures of all categories will be extended according tohe situation engendered by the specific characteristics of the pollution.

Listed for reference are:

B. 3. 1. Industry
a. Prohibition of operation of certain industries on a special list.

b. Lowering the production in a certain number of industries to the minimum levels of maintenance and safety.

B. 3. 2. Automobiles

(They are mentioned on page 1)

B. 3. 3. Activities

1. Closing of public and private schools and universities.

2. Restricted operation of civil service organizations and banks.

Pollution Limits
Type and Level of Pollution

Limits	Smoke (COH)	Sulfur dioxide (SO_2µg)m3	Nitrogen dioxide NO_2µg)m3	Carbon monoxide COµg
	(24 hour basis)		(hr. basis)	(8 hr basis)
Permissible	3	200	200	15
Alert condition	5	400	500	25
Emergency condition restrictions	7	500	700	35

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TREES ON ROOFTOPS COULD IMPROVE AIR QUALITY

Athens OIKONOMIKOS TAKHYDROMOS in Greek No 4 (1447), 28 Jan 82 p 78

[Text] No one ignores the fact that one of the greatest problems affecting the inhuman city called Athens is the lack of green spaces. Thus, while international standards set 15 square meters of green spaces per inhabitant, in Athens, on an average, there are between 2.6 and 3.7 square meters only, according to Ministry of Public Works data (compared to 75 square meters per inhabitant in Sweden).

However, the Center for the Application of General Research (KEGE) aims at correcting this situation by launching its "Green Cities 81" program, based on a new international technological achievement. We were told that following the implementation of this program, Athens will have: a) 124.63 square meters of green spaces per inhabitant (a record number by international standards) and b) 185.58 square meters green spaces per inhabitant, [as published] produced by luxuriant tree growth and not by walked-on grass. These results will be obtained from the implementation of the KEGE technology in problem cities without the need of restructuring existing institutions.

These green areas will be equitably distributed on rooftops of Athens and other Greek cities.

In order to satisfy the curiosity of the public and to elicit the interest of the proper authorities, the KEGE has set up an exhibition that will remain open until 20 January 1982 [as published]. Moreover the center, which possesses long experience in the field of plantings on rooftops and terraces, has studied the cost of this undertaking and has been able to achieve significantly low prices. The center stresses that the yearly family contribution to the final cost of the project that will turn each building into a private park for all will not exceed the expenses for purchasing a month's worth of cigarettes for the family. The cost per building could be paid in 3 to 7 yearly installments, depending on the needs of those directly concerned.

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AIR POLLUTION AGAIN PRIME ANKARA CONCERN

Severe Air Pollution

Istanbul CUMHURIYET in Turkish 12 Jan 82 pp 1, 7

[Text] (Cumhuriyet Bureau) As the result of the combination of dense fog and air pollution in Ankara, the proportion of poisonous gas in the air has reached dangerous levels. For this reason, schools were given a two and one-half day recess and children, the elderly and the sick were requested not to venture outdoors.

It has been decided that as of today private passenger vehicles which have license plates ending in even numbers can be operated only on even numbered days and cars bearing plates ending in odd numbers only on odd numbered days.

Dr Enver Senerdem, Deputy Minister of Health, stated that while 70 milligrams of carbon dioxide per cubic meter of air is considered normal, this figure has reached 140.84 milligrams in Ankara, and while the amount of sulphuric acid is usually 150 milligrams it has risen to 520 milligrams.

Ankara Governor Mustafa Conul presided over the Provincial Hygiene Council which gathered yesterday afternoon. After the meeting, the Ankara governor made the following announcements:

"The density of air pollution in the capital city of Ankara reached the critical point, on Monday 11 January 1982. The matter was addressed in a letter from the Prime Minister's Environmental Advisory Office sent to the Governor's Office, in which it was requested that the necessary measures be taken. Upon receipt of this, the Governor's Office quickly decided to convene the Provincial Hygiene Council. Our Council comprehensively discussed the matter and established certain principles some of which are advisory in nature and others which are compulsory."

Ankara Governor Mustafa Gonul announced the council's decisions as follows:

Measures:

1- As of today (yesterday), elementary and secondary schools to be closed for 2-1/2 days, to take in Tuesday and Wednesday.

2- Central heating units to operate at minimum levels.

3- No smoking in homes and enclosed places.

4- No physical exercises.

5- No unnecessary opening of doors and windows in homes.

6- Stoves in homes which use lignite and coke to be lighted from above.

7- Open ammonia bottle to be circulated in homes two or three times each day in order to neutralize the sulphur dioxide gas.

8- Because we are in energy conservation week and as part of the measures for preventing air pollution, as of 12 January 1982 (today) private passenger vehicles which have license plates ending in even numbers may operate on even numbered days of the week and those with plates ending in odd numbers on odd numbered days of the week.

9- Citizens should be warned that it is inadvisable for persons between the ages of 0-12 and those over 50, along with individuals suffering from heart and lung illnesses, to go outside, unless it is absolutely necessary.

10- The decision has been made to assess the benefit of mixing into fuel oil used in central heating units another fuel--containing organic metallic manganize--which burns efficiently and measurably reduces sulphur dioxide and smoke. This fuel can be obtained from the Petroleum Office General Directorate."

Proportion of Sulphur Dioxide

As the result of research conducted by officials, it was determined that the section with the highest concentration of sulphur dioxide is Kavaklidere.

Professor Abdullah Ileri, chairman of the Environmental Health and Air Pollution Department at the Ankara Hygiene School, made the following announcements concerning research into yesterday's events in the capital:

"It has been determined that today (yesterday) there are 750 micrograms per cubic meter of sulphur dioxide in the Ankara air and 186 micrograms per cubic meter of smoke. The maximum concentration of sulphur dioxide in the air in a 24 hour period allowed by the World Health Organization is 150 micrograms per cubic meter. As for smoke, the figure suggested is 75 micrograms per cubic meter. These standards are accepted by all the countries of the world. But the amount of sulphur dioxide in Ankara's air is five times this amount and the amount of smoke is 2.5 times the standard. At present, samples of air pollution are being taken 24 hours a day at stations of the Hygiene School of the Ministry of Health and Social Assistance in five areas."

"These areas are Cebeci, Kizilay, Ulus, Kavaklidere and Sihhiye. It has been determined that the proportion of sulphur dioxide found in Cebeci is 985 micrograms per cubic meter, in Ulus 265, in Kizilay 599, in Kavaklidere 1290 and in Sihhiye 520. As for smoke, the figures are 207 micrograms per cubic meter in Cebeci, 171 in Ulus, 191 in Kizilay, 218 in Kavaklidere and 240 in Sihhiye. It is seen that these figures are between five and 2.5 times greater when compared to the figures we gave a bit earlier.'

"While the proportion of sulphur dioxide was 347 micrograms per cubic meter on this date last year, the figure had risen to 752 this year."

"Smoke content on 11 January 1981 was 100 micrograms per cubic meter and had risen to 186 today. According to determinations made in the Kavaklidere area, an excessive amount of the extremely heavy number 6 fuel-oil is being burned there. Sulphur content in this fuel oil ranges between 4.5 and 5 percent. In other words, it is estimated that since there is four times more sulphur than in the ordinary lignite which is normally burned, the proportion of sulphur dioxide in this area is excessive."

Use of Fuel Prevented in Some Areas

Yesterday police teams of the Ankara municipality prevented those homes and factories which do not burn normal fuel from burning fuel at all. Additionally, mobile police teams cruised throughout Ankara, making announcements advising persons to limit their travelling and use fuel correctly.

Dense Fog Will Continue

According to information obtained from the General Directorate of Meteorology, the effect of the dense fog which combined with the air pollution in Ankara yesterday, will continue today. The effect of the fog will gradually decrease in the coming days and, in addition, snow mixed with rain is expected in Ankara today. A very slight wind is called for in the capital today.

What Do Doctors Say?

Professor Mustafa Artinli of Hacettepe Hospital's Department of Thoracic Diseases, emphasized that the air seen in Ankara yesterday is particularly harmful for those who have chronic bronchitis, asthma and troubled breathing.

What Citizens Must Do

Furthermore, health officials stated that certain protective measures must be taken by citizens because of the intensification of air pollution. These measures were announced as follows:

"Citizens should walk slowly in the street and keep the windows of homes and offices tightly shut. Those with heart ailments, in particular, should avoid areas of high air pollution concentration. Don't smoke. Drink large amounts of milk and eat yougurt."

Controls Tightened

Meanwhile, municipal workers and other officials are checking the smoke of central heating furnaces and those which emit smoke harmful to health are being extinguished. Officials are requesting that central heating units be operated in accordance with regulations and they say that those who disregard these rules will be prosecuted.

Mumcu Bemoans Pollution

Istanbul CUMHURIYET in Turkish 12 Jan 82 pp 1, 6

[Article by Ugur Mumcu]

[Text] Yesterday in Ankara it was pitch black; a combination of fog and dirty air had enveloped Ankara; officials were announcing that the proportion of sulphur dioxide in the air had risen to a level that could destroy human life.

I was looking through the window and could not see more than 100 meters. I went out on the street and at the lunch hour only those cars shining their headlights could move about; it was hard to see even two steps ahead by evening; filthy air like an enemy army had raided and taken over Ankara.

Schools have been let out; heating units are operating at the lowest level; the number of vehicles on the road has been limited; children, the elderly and those with lung and heart ailments were asked to remain indoors. The Ankara governor enumerated measures to be taken on radio and television.

I was thinking, how many times before had this possibility been written about. The "Advisory Office on Environmental Health" was established with this in mind. Volunteer organizations under the name "Foundation for Environmental Problems in Turkey" continue their efforts; but look, we have still been caught unaware. If there are deaths today and tomorrow and if people start dying one by one some from heart failure, some from breathing disorders, won't we ask "I wonder, did we wait too long?"

Officials have been Announcing:

The proportion of sulphur dioxide per cubic meter of air was found to be 985 micrograms in Cebeci, 265 in Ulus, 599 in Kizilay, 1,290 in Kavaklidere and 520 in Sihhiye. Smoke in the same areas was determined to be 207 micrograms per cubic meter in Cebeci, 171 in Ulus, 191 in Kizilay, 218 in Kavaklidere and 240 in Sihhiye.

Again, according to information supplied by officials, "number 6 fuel oil" is being burned in Kavaklidere. "Sulphur in a proportion of between 4.5 - 5 percent" is found in the fuel. This is three or four times the proportion of sulphur in the lowest grade lignite.

These percentages have been found to be 5 1/2 or 6 1/2 times greater than the proportions which health organizations yesterday declared "dangerous."

This means that we who live in Ankara are very sturdy folks. We have stood it up to now but whether we can from now on is not quite certain.

The proportion of sulphur dioxide in the fuel is a great deal more than in lignite coal; I wonder, why would these heating units be given fuel with a "number 6" thickness? Why were fuel-oil boilers installed for heating units years ago instead of coal boilers at a time when coal heating was available? Why would both the national economy and human health have been subjected to such dangers? Why would the planting of a forest to surround Ankara have been blocked? Why would the metro project, which would have greatly reduced air pollution by motor vehicles, have been axed?

Why weren't all these measures taken in time, why weren't these progressive, fiscally-sound plans implemented?

It is hard to figure out why, in the fourth quarter of the twentieth century, the people of a capital city have been so irresponsibly abandoned to a slow death. I don't know about the other matters but this irresponsibility is shared.

None of these should be considered a surprise, both this fog and the filthy air did not show up in the early morning hours of one day. Everyone knew this filthy air would come. But the eyes were blind, the ears deaf.

At the least, we are henceforth obliged to cooperate in taking measures and to do whatever is necessary to protect the people of Ankara by listening to the voice of science.

I was going to say "look at Ankara's stones and the tears in my eyes" but I couldn't even see Ankara's stones because of the fog and filthy air.

Ankara, which challenged the Western world before becoming the capital, today has fallen to filthy air.

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MARCH 5, 1982